



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

April 14, 2015

Jay Marshall, Resident Agent
Andalex Resources, Inc.
P. O. Box 910
East Carbon, Utah 84520-0910

Subject: Request for Additional Information, Kenilworth Lease Addition, Andalex Resources, Inc., Centennial Mine, C007/0019, Task ID #4763

Dear Mr. Marshall:

The Division has reviewed your application to add the Kenilworth Lease to the permit area and Mining and Reclamation Plan (MRP) for the Centennial Mine. The Division has identified deficiencies that must be addressed before final approval can be granted. The deficiencies are listed as an attachment to this letter.

The deficiencies authors are identified so that your staff can communicate directly with that individual should questions arise. Please submit the required information as an addendum to your existing application by no later than June 19, 2015.

The Kenilworth Lease Addition to the Centennial Mine (Task #4763) will remain pending until the requested information is received. If you have any questions, please call me at (801) 538-5325.

Sincerely,

Daron R. Haddock
Coal Program Manager

DRH/sqs

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Technical Analysis and Findings

Utah Coal Regulatory Program

April 14, 2015

PID: C0070019
TaskID: 4763
Mine Name: CENTENNIAL MINE
Title: KENILWORTH LEASE ADDITION

General Contents

Permit Application Format and Contents

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of R645-301-120. The information in Chapter 3 needs to be updated to reflect current conditions, organized by rule to provide clear and concise information and contain only information relevant to the Chapter. More specifically, information that applies to the specific rule should be placed in the appropriate section and not referred back to the introduction. It is not clear where information is located since it is scattered throughout and referenced to old documents. The general flow is hard to follow and should be reorganized so that information is provided in the same sequence as the rules.

lreinhart

Permit Application Format and Contents

Deficiencies Details:

R645-301-121.200: The application does not meet the Divisions clear and concise requirements in multiple locations of the text. Unclear and confusing sections and maps that need addressing are as follows:

- 1) Base topographic map illegible: Figure 5, Figure 7-1, Figure 7-2,
- 2) Incorrect reference of Plate 29: a reference to a hydrologic boundary map is needed
- 3) One complete water monitoring table is needed for the mine site. Incorporate Kenilworth lease monitoring sites into the currently approved water monitoring tables.
- 4) All references to insert map or table (i.e. Insert original map Figure IV-11) need to be inserted into document.
- 5) Table IV-6, IV-7 needs to be properly formatted. Pg 7-101.
- 6) Chapter and page number need to be given if a Table is referenced.
- 7) Combine Kenilworth lease water monitoring maps and tables with the approved water monitoring maps and tables in the current MRP.

kstorrar

Environmental Resource Information

Historic and Archeological Resource Information

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of the regulations. Prior to approval the application must contain a description of the existing land uses and land-use classifications under local law, if any, of the proposed permit and adjacent areas in accordance with R645-301-411.130. The zoning and land use classification must be updated to include the new permit area (including the Kenilworth Lease additions). The existing information is for the permitted area in 1974 as noted on page 4-2.

Prior to approval the application must provide adequate information on cultural and historic resources on the Kenilworth Lease addition. DOGM needs this information to request concurrence from SHPO, in which a determination is made if any sites could be listed or eligible for listing in the National Register of Historic Places in accordance with R645-411-140 through 144. Although the application does contain a file search (literature review) on the general area from 2007, a comprehensive report describing the level of survey and recommendations from a professional archeologist are not provided. The map provided does not include a boundary of the Kenilworth lease area, nor does it include any information to determine who made the map and how reliable it is. As noted in Appendix C, letter dated 6/15/1988 from the Utah State Historic Preservation Office, the area has the potential for rock shelters and rock art. Furthermore, it is well understood that subsidence may impact rock shelters or art and as such a monitoring and mitigation plan must be in place prior to approval of the application.

Irreinhardt

Vegetation Resource Information

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of R645-301-321.200 and R645.301-323.100.

Prior to approval the application must clearly associate the production information provided in appendix M with areas of surface disturbance. From the information provided, it is not clear where reclamation monitoring locations for production estimates are located. The map provided in Appendix M (pg. 121) does not show permit boundaries and furthermore appears to only include portions of Sections 4 & 9 in T.13S, R.11E whereas surface disturbance has occurred in other permitted areas, specifically sections 7, 18, 31, & 36.

Page 3-1/3-2 states three reference areas for vegetation have been selected and approved by the Division. A map indicating the reference areas should be included or referenced in accordance with R645-300-122. If this section is referencing areas as noted on Plate 9, it should reference it. Page 3-41 references Attachment 3-1, however this attachment is not included in the application or the existing MRP. Please submit attachment 3-1.

Page 3-2 references new vegetation mapping completed by Mt. Nebo Scientific, Inc. The next paragraph indicates EarthFax Engineering completed vegetation mapping (Plate 19). There are other references to Appendix M, from SCS. References to vegetation and mapping are inconsistent and need clarification on what map should be used and also include the report that coincides with the map. Include a date of when the information was collected. R645-301-121.200.

The statement on page 3-2, "It should be noted that no wetland or riparian areas are known to exist on the current permit or on the Kenilworth Lease Area..." directly conflicts with the statement on page 3-1 "...and minor stream-side vegetative types cover the total mine plan area". According to visual inspection from topographic maps and aerial imagery, numerous streams and springs exist within the permit area. Prior to approval the application must accurately describe any streams, wetlands, riparian areas contained in the entire permit area in accordance with R645.301-322.220

Irreinhardt

Vegetation Resource Information

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Irreinhardt

Fish and Wildlife Resource Information

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of the regulations. The T&E list is completely out of date. According to the Trust Resources List (3/24/2015) there are a total of 7 threatened, endangered, or candidate species that have the potential to occupy the area with emphasis on Mexican Spotted Owl, and Yellow Billed Cuckoo. Prior to approval the application must contain the following in accordance with R645-301-322.210. The application shall include current fish and wildlife resource information for the permit area and adjacent area and shall be sufficient to design the protection and enhancement plan required under the operation and reclamation plan.

Information provided in the application is not considered adequate to meet the minimum requirements of the regulations. Prior to approval the permittee must provide the following in accordance with R645-301-323.200. Elevations and locations of monitoring stations used to gather data for fish and wildlife, and any special habitat features.

Irreinhardt

Geologic Resource Information

Deficiencies Details:

Much of the narrative discusses previous mining and mining in other leases such as the Graves lease and the AEP lease and describes the overburden as being from 0 to 2700 feet (see pages 6-4, 6-10 and 6-11). Page 6-4 describes the bulk of the coal being under less than 1500 feet of cover. This is not the case in the Kenilworth lease. There seems to be some hold-over information from the original Centennial mining and reclamation plan which has not been up-dated. A more accurate description of the overburden in the Kenilworth lease needs to be provided.

dhaddock

Hydro Sampling and Analysis

Deficiencies Details:

R645-301-722.100: The application is missing a narrative with supporting maps and cross-sections of the geologic relationship with subsurface water, surface alluvial deposit depths in stream channels etc. and areal and vertical distribution of aquifers and discussion of seasonal differences in head.

R645-301-722.200: A spring a seep survey of hydrologic resources potentially affected by underground mining within and adjacent to the Kenilworth lease area is needed.

R645-301-722.500: The application is deficient in providing a surface map identifying hydrologic stream boundaries within and adjacent to the permit area.

R645-301-724: Proposed stream and groundwater monitoring sites do not adequately capture the area affected by proposed underground monitoring.

R645-301-724.200: The names of all surface water bodies potentially affected within and adjacent to the permit area are needed.

R645-301-724.100 - .200: The application does not provide up-to-date baseline data on current seasonal flows. An approved baseline monitoring plan must be submitted that clearly outlines a robust baseline data collection and monitoring plan at low and high flows. The plan will outline when monitoring will commence so an adequate number of samples can be collected of low and high flows prior to the beginning of mining.

R645-301-724.320, -742.221.32: Pond "E"-PM does not provide adequate detention time calculations to show the pond will settle suspended solids and meet Utah effluent standards.

Pond "E"-PM reclamation design does not meet the minimum containment or treatment of a 10-year, 24-hour event.

kstorrar

Probable Hydrologic Consequences Determination

Deficiencies Details:

R645-301-728.100: The application does not contain a PHC determination upon the quality and quantity on surface and groundwater within and adjacent to the permit area with regard to specific geologic units and alluvium.

R645-301-728.223 – The application does not outline how the mine will be de-watered and how the contaminated water quality will impact local water resources.

R645-301-728.310: The application is lacking monitoring wells to show groundwater is not in hydraulic communication with shallow bedrock and alluvial groundwater aquifers.

R645-301-728.333 – The PHC in the application does not discuss streamflow alteration in areas where subsidence could potentially occur.

kstorrar

Maps Vegetation Reference Area

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of the regulations. Prior to approval the permittee must provide the following in accordance with R645-301-323.100. The location and boundary of any proposed reference area for determining the success of revegetation

Ireinhart

Operation Plan

Air Pollution Control Plan

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of R645-301-420. Prior to approval, the application must contain a description of coordination and compliance efforts which have been undertaken by the applicant with the Utah Division of Air Quality. Due to the addition of the new lease area and the time lapse (27 years) since the last documented coordination with the air quality regulatory authority, it is prudent to provide recent coordination efforts between the applicant the Utah Department of Air Quality. The projected production rates from the Kenilworth lease addition shall be considered in the air pollution control plan.

Ireinhart

Subsidence Control Plan Subsidence

Deficiencies Details:

The application sections do not reference the current R645 rules. The application includes the sections R645-301-525.241 through -525.270, which no longer exist. The section addressed as -525.240 does not meet the minimum requirements or R645-301-525.240 that require the operator to submit a detailed plan of the underground workings which include maps and

descriptions of significant features of the underground mine. The current application has all of this information presented under Section R645-301-525.270. The Permittee will correct section R645-301-525.240 through -525.270 to match the current R645 Rules.

The application does not meet the minimum requirements of R645-301-525.300, Subsidence control. The application is missing references to previous section where subsidence control is discussed and improperly references R645-301-525.300. Under section R645-301-525.300 of the current application only includes reference to a public notice of proposed mining and does not address any means of subsidence control or the Kenilworth lease area. The Permittee will address section R645-301-525.300 in regards to the Kenilworth lease.

The application does not include any reference to R645-301-525.400 which requires details of the subsidence control plan contents as outlined in the rules. The application covers the relevant information in section R645-301-525.270, which no longer exists as a R645 rule. The appropriate information should be moved and referenced in section R645-301-525.400. The application does not meet the minimum requirements of R645-301-525.400 which states that because no structures, or State-appropriated water supplies or renewable resource land exist, or that no material damage or diminution in value or reasonable foreseeable use of such structures or lands, and no contamination, diminution, or interruption of such water supplies would occur as a result of mine subsidence, and if the Division agrees with this conclusion, no further information need be provided. The Permittee will address section R645-301-525.400 in regards to the Kenilworth lease.

The application does not include any reference to R645-301-525.500 which requires details of repairing damage due to subsidence. The application covers the relevant information in section R645-301-525.270, which no longer exists as a R645 rule. The appropriate information should be moved and referenced in section R645-301-525.500.

cparker

Subsidence Control Plan Notification

Deficiencies Details:

The application does not include any reference to R645-301-525.700 and does not meet the minimum requirements set forth in said section for notification of owners of the area above underground operations. The Permittee will address this section to include the new ownership of the Kenilworth lease.

cparker

Subsidence Control Plan Notification

Deficiencies Details:

The application does not include any reference to R645-301-525.700 and does not meet the minimum requirements set forth in said section for notification of owners of the area above underground operations. The Permittee will address this section to include the new ownership of the Kenilworth lease.

cparker

Fish and Wildlife Protection and Enhancement Plan

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of R645-301-358. Prior to approval, the application must reconcile the following.

The statement is made in the Introduction on page 3-1 "Since the Kenilworth Lease is simply an extension of underground mine workings under roughly 2,000 to 3,000 feet of cover there will be absolutely no effect on vegetation, fish or wildlife." This statement should be supported with additional technical and scientific backing from previous similar mining situations. The statement found on page 3-16 is in direct conflict "Andalex, through raptor surveys conducted, has identified Golden Eagle nests which could be impacted by subsidence".

The raptor survey depicted on plate 34 A was conducted in 2007 and needs to be updated two years prior to subsiding in accordance with the Utah Coal Regulatory Program Raptor Survey Guidelines. Although Andalex notes they are committed to acquiring necessary take permits prior to longwall mining under raptor nests, R645-301-300 states nothing in the R645 Rules will authorize the taking of an endangered or threatened species or a bald or golden eagle, its nest, or any of its eggs in violation of the endangered Species Act of 1973 or the Bald Eagle Protection Act, as amended. Prior to approval, the

application must identify how the mine plans to monitor for, and prevent take of an endangered or threatened species, or bald or golden eagle, its nest, or eggs.

Adequate information exists to support potential effects to environmental resources, including wildlife habitat and water resources as a result from subsidence. According to the Trust Resources List (3/24/2015) there are a total of 7 threatened, endangered, or candidate species that have the potential to occupy the area and the potential for subsidence to negatively impact these species must be analyzed. See R645-301-322.210 and R645-301-322.220

Page 3-12; Impacts of Operations. Provide reference documentation in accordance with R645-300-122 to the following: "The only potential impact to wildlife as a result of construction (golden eagle nests) has been addressed thoroughly and a negative impact determination was made."

Irrehart

Vegetation

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of R645-301-332. Although the Kenilworth Lease will result in no new surface disturbance, the application does not adequately address potential impacts of subsidence on renewable resources, specifically those as noted as riparian areas as referenced on page 3-1 "...and minor stream-side vegetative types cover the total mine plan area".

Irrehart

Hydro Surface Water Monitoring

Deficiencies Details:

R645-301-731.200: The proposed monitoring schedule does not meet the minimum hydrologic requirements. Water monitoring sites will be monitored quarterly and submitted to the Division.

R645-301-731.200: The Kenilworth lease proposed water monitoring program will need to be incorporated into the currently approved MRP. The proposed water monitoring program is not clear and concise as it currently stands. Table A and Table B in the approved MRP will be updated to include the proposed water monitoring sites.

R645-301-731.210: Deep and shallow water monitoring wells are required within the permit area to monitor groundwater within the permit area.

R645-301-731.211: A quantifiable in-mine monitoring plan is needed for intercepted flow.

R645-301-731.222: Stream water monitoring points are needed in areas affected by subsidence.

R645-301-728.334, R645-301-731.222: The application lacks a contingency monitoring plan if subsidence within stream channels or near springs alters the flow of the water resources within and adjacent to permit area.

R645-301-731.222.2: The reference UPDES permit within the text is reference is expired.

R645-301-731.121, R645-301-521.124: The application is deficient in designing a passive or active treatment system to treat mine water as it is dewatered from the mine.

kstorrar

Reclamation Plan

Approximate Original Contour Restoration

Deficiencies Details:

The current application states that variance has been granted for Apex, Pinnacle, and Aberdeen from approximate original Contour. This statement is incorrect as any "variance" to any R645 Coal mining rules falls under section R645-302 which requires reviews and approval by the Division and the U.S. Office of Surface Mining. The application does not meet the minimum requirements of R645-301-512.260 as no variance has been granted. The Permittee will remove the text from this section stating that variance has been granted.

Mine Openings

Deficiencies Details:

The application does not meet the minimum requirements of R645-301-529 and -551 as the first sentence in Mains, Submains, and slopes states a five to seven entry system is being used. The statement then conflicts with the final sentence in the paragraph stating "... making the five entry system." Clarification is requested on the number of entries as such information is pertinent to R645-301-529 and -301-800.

cparker

Revegetation Timing

Deficiencies Details:

The application must contain a detailed schedule and timetable for the completion of each major step in the revegetation plan in accordance with R645-301-341.

Ireinhart